



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/713,364	11/14/2003	Stacy A. Hunt	US20030303	9149
173	7590	12/15/2006	EXAMINER	
WHIRLPOOL PATENTS COMPANY - MD 0750 500 RENAISSANCE DRIVE - SUITE 102 ST. JOSEPH, MI 49085			GRAY, JILL M	
			ART UNIT	PAPER NUMBER
			1774	

DATE MAILED: 12/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/713,364	HUNT	
	Examiner	Art Unit	
	Jill M. Gray	1774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5-17,21-28,30-34 and 37-47 is/are pending in the application.
- 4a) Of the above claim(s) 13-17,21-28,30-34 and 37-45 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5-12,46 and 47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The indicated allowability of the subject matter of cancelled claim 4 is withdrawn in view of the newly discovered reference(s). Rejections based on the newly cited reference(s) follow.

The rejection of claims 5, 9-12, and 46 under 35 U.S.C. 103(a) as being unpatentable over Hilpert et al, 1,902,237 in view of Wright 1,829,623 is moot in view of applicants' amendments.

The rejection of claims 6-8 under 35 U.S.C. 103(a) as being unpatentable over Hilpert et al 1,902,237 in view of Wright 1,829,623 is moot in view of applicants' amendments.

The rejection of claim 47 under 35 U.S.C. 103(a) as being unpatentable over Hess et al, US 2001/0032825 A1 in view of Hilpert et al, 1,902,237 and Wright 1,829,623 is moot in view of applicants' amendments.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 5, 9-12 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hilpert et al, 1,902,237 (Hilpert) in view of Esser 5,609,965.

Hilpert is as set forth previously and teaches a dish rack comprising a metal frame configured to support dishes and an exterior coating covering at least a portion of the metal frame, wherein the exterior coating protects the metal frame from corrosion, per claim 46. The frame comprises a wire-form having multiple interconnected wires

Art Unit: 1774

and has a bottom wall and a peripheral wall extending upwardly from the bottom wall with tines located within the dish-holding recess, as required by claims 9-11. Also, Hilpert teaches that the exterior coating covers the entire metal frame as required by claim 12. See Figs. 1 and 2, and page 2, lines 47-52. The exterior coating comprises rubber or similar organic materials as well as natural and synthetic resins. See page 1, line 85 through page 2, and line 2. In addition, Hilpert teaches that the base metal frame can be coated with another metal that is less readily corrodible than the metal of the frame. See page 2, and lines 21-32. Accordingly, Hilpert teaches an exterior coating that comprises a layer on the metal frame and a polymer layer on said layer. Hilpert does not specifically teach a paint layer.

Esser teaches surface coatings that are coated onto substrates that include a variety of metal surfaces including polished metal surfaces and metal foils. Said coatings can be utilized as paints and produce durable, abrasion-resistant and solvent-resistant surface coatings. Moreover, Esser teaches that these coatings have consumer end-use applications that include durable polymeric film and surface coatings for home use appliances such as dishwashers. See column 5, lines 16-40.

At the time the invention was made, the protecting metal surfaces in dishwashers from corrosion and deterioration by providing protective coatings was known in the art, as evidenced by the teachings of Hilpert. In particular, Hilpert provides a suggestion for multi-layer protective coatings through his teachings of a metal layer on the metal frame and a polymer layer on said layer. It would have been obvious to one of ordinary skill in the art at the time the invention was made, to form a dish rack as taught by Hilpert,

Art Unit: 1774

wherein the coated metal frame is modified by the addition of a layer of non-metallic paint applied to the metal frame or metal layer on said metal frame, as taught by Esser, whereby said paint provides durability, abrasion-resistance and solvent-resistance to the metal frame and thereby enhancing the protection of the dish rack from deterioration and corrosion. As to the paint layer being electrocoated, this limitation is drawn to the process of applying the coating, and in general, process limitations add no patentable weight to an instant claimed product, in the absence of factual evidence to the contrary, said evidence being directly related to the process.

Therefore, the combined teachings of Hilpert and Esser would have rendered obvious the invention as claimed in present claims 5, 9-12 and 46.

4. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hilpert et al, 1,902,237 (Hilpert) in view of Esser 5,609,965 as applied a to claims 5, 9-12 and 46 above, and further in view of Richart 3,640,747.

Hilpert and Esser are as set forth above and do not teach the application of polyvinyl chloride or a polyvinyl chloride blend. Richart teaches protective vinyl coatings that are tough, durable, inexpensive and fairly resistant to chemical attacks, wherein said coatings can be used as the coating of dish racks for use in automatic dishwashers. See column 1, lines 8-18 and 33-45. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Hilpert by substituting the rubber coating with a vinyl coating as taught by Richart, with the reasonable expectation of success of producing a dish rack that is tough, durable, resistant to chemical attacks and inexpensive.

Therefore, the combined teachings of Hilpert, Esser and Richart would have rendered obvious the invention as claimed in present claims 6-8.

5. Claim 47 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hess et al, US 2001/0032825 A1 (Hess) in view of Hilpert et al, 1,902,237 (Hilpert) and Esser 5,609,965 as applied to claims 5, 9-12, and 46 above.

Hess teaches an automated dishwasher comprising a wash tub having a top, bottom, side and rear walls, which collectively form an open-faced wash chamber, a door hingedly mounted relative to the wash tub for movement between an open and closed condition, a dish rack located within the open-faced wash chamber and comprising a metal frame configured to support dishes; and an exterior coating covering at least a portion of the metal frame comprising a layer of plastic. See Figure 1 and [005]. Hess does not specifically teach an electrocoated layer on the metal frame or a polymer layer on the electrocoated layer.

As set forth above, the requirement that the layer be electrocoated is drawn to the process of making and does not add patentable weight to the instant claims. Hilpert is as set forth above and teaches a dish rack comprising a metal frame configured to support dishes, an exterior coating covering at least a portion of the metal frame that protects the metal frame from corrosion whereby said exterior coating can be a metallic layer on the metal frame and a polymer layer on said metallic layer. Esser teaches that the application of protective paint coatings on metal substrates to provide durability, abrasion-resistance, and solvent-resistance. It would have been obvious to modify the

Art Unit: 1774

coated dish rack of Hess by including a non-metallic paint layer to provide added protection to the metal frame of the dish rack against oxidation and corrosion.

6. Claims 5, 9-12, and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hilpert et al, 1,902,237 (Hilpert) in view of Uchida et al, 3,501,278 (Uchida).

Hilpert is as set forth previously and teaches a dish rack comprising a metal frame configured to support dishes and an exterior coating covering at least a portion of the metal frame, wherein the exterior coating protects the metal frame from corrosion, per claim 46. The frame comprises a wire-form having multiple interconnected wires and has a bottom wall and a peripheral wall extending upwardly from the bottom wall with tines located within the dish-holding recess, as required by claims 9-11. Also, Hilpert teaches that the exterior coating covers the entire metal frame as required by claim 12. See Figs. 1 and 2, and page 2, lines 47-52. In addition, Hilpert teaches that the base metal frame can be coated with another metal that is less readily corrodible than the metal of the frame. See page 2, and lines 21-32. The exterior coating comprises rubber or similar organic materials as well as natural and synthetic resins. See page 1, line 85 through page 2, and line 2. In addition, Hilpert teaches that the base metal frame can be coated with another metal that is less readily corrodible than the metal of the frame. See page 2, and lines 21-32. Accordingly, Hilpert teaches an exterior coating that comprises a layer on the metal frame and a polymer layer on said layer. Hilpert does not specifically teach a paint layer.

Uchida teaches a process for electrodeposition of paint onto metal surfaces such as zinc plated steel. His process includes the application of a chromium plating onto the zinc plating followed by the electrodeposition of a non-metallic paint. This results in good corrosion protection and the prevention of red rusting. See abstract, column 1, lines 31-50 and column 2, lines 16-20.

Uchida recognizes the same problem as applicants and Hilpert, namely, the deterioration and corrosion of metal surfaces such as steel coated with zinc, and seeks to solve this problem in a manner similar to applicants and Hilpert through the application of various protective coatings onto said metal surfaces. Accordingly, the teachings of Uchida are reasonably pertinent to the particular problem with which the inventor is concerned. It is of no moment that Uchida does not specifically teach the electrodeposition of his paint coatings onto metal frames in dish racks.

Therefore, at the time the invention was made, it would have been obvious to one of ordinary skill in this art to modify the teachings of Hilpert by electrodepositing a non-metallic paint onto the metal frame or metal coated metal frame, with the reasonable expectation of success of obtaining a dish rack that has good corrosion resistance and is satisfactorily prevented from rusting.

As a result, the combined teachings of Hilpert and Uchida would have rendered obvious the invention as claimed in present claims 5, 9-12 and 46.

7. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hilpert et al, 1,902,237 (Hilpert) in view of Uchida et al, 3,501,278 (Uchida) each as applied above to claims 5, 9-12, and 46, further in view of Richart 3,640,747.

Hilpert and Uchida are as set forth above and do not teach the application of polyvinyl chloride or a polyvinyl chloride blend. Richart teaches protective vinyl coatings that are tough, durable, inexpensive and fairly resistant to chemical attacks, wherein said coatings can be used as the coating of dish racks for use in automatic dishwashers. See column 1, lines 8-18 and 33-45. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Hilpert by substituting the rubber coating with a vinyl coating as taught by Richart, with the reasonable expectation of success of producing a dish rack that is tough, durable, resistant to chemical attacks and inexpensive.

Therefore, the combined teachings of Hilpert, Uchida and Richart would have rendered obvious the invention as claimed in present claims 6-8.

8. Claim 47 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hess et al, US 2001/0032825 (Hess) in view of Hilpert et al, 1,902,237 (Hilpert) and Uchida et al, 3,501,278 (Uchida).

Hess teaches an automated dishwasher comprising a wash tub having a top, bottom, side and rear walls, which collectively form an open-faced wash chamber, a door hingedly mounted relative to the wash tub for movement between an open and closed condition, a dish rack located within the open-faced wash chamber and comprising a metal frame configured to support dishes; and an exterior coating covering at least a portion of the metal frame comprising a layer of plastic. See Figure 1 and [005]. Hess does not specifically teach an electrocoated layer on the metal frame or a polymer layer on the electrocoated layer. Hilpert is as set forth above and teaches a

Art Unit: 1774

dish rack comprising a metal frame configured to support dishes, an exterior coating covering at least a portion of the metal frame that protects the metal frame from corrosion whereby said exterior coating can be a metallic layer on the metal frame and a polymer layer on said metallic layer. Uchida teaches that the electrodeposition of protective non-metallic paint coatings onto metal substrates to provide corrosion resistance and prevention from rusting. It would have been obvious to modify the coated dish rack of Hess by including an electrodeposited non-metallic paint layer to provide added protection to the metal frame of the dish rack against rusting and corrosion.

Therefore, the combined teachings of Hess, Hilpert and Uchida would have rendered obvious the invention as claimed in present claim 47.

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jill M. Gray whose telephone number is 571-272-1524. The examiner can normally be reached on M-Th and alternate Fridays 10:30-7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1774

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Jill M. Gray
Primary Examiner
Art Unit 1774

jmg